

CHAPTER 3

WORKLOAD, CAPACITY, AND CAPACITY UTILIZATION

3.1 INTRODUCTION

This chapter provides tables that depict, by depot, actual and projected workload, capacity, and depot capacity utilization trends over the period FY00-FY07. These figures reflect planned closures, interservicing, consolidations, and divestitures. The tables are comprised of three categories:

- Workload, which shows the amount of workload in direct labor hours (DLH) either executed or expected to be executed in a given fiscal year;
- Capacity Index, which shows the amount of workload in direct labor hours that the depot can effectively produce annually on a single shift, 40-hour week basis; and
- Utilization Index, which is a computation of dividing workload by capacity index.

Capacity and utilization data were requested to be computed in accordance with the DoD 4151.18-H, the *DoD Depot Maintenance Capacity and Utilization Handbook*, 24 January 1997, and its supplemental interim instructions issued 30 September 1999, for all depot activities. Capacity data represents the total capacity at each depot, including reserve and excess capacity.

When appropriate, tables are followed by notes describing particular events effecting workload or capacity levels for those depots. These notes also provide explanations of any unusual fluctuations shown by the data in a given table.

3.2 DEPOT WORKLOAD, CAPACITY, AND CAPACITY UTILIZATION SUMMARY

3.2.1 Army

Table 3-1
Anniston Army Depot (ANAD)
(DLH 000)

	<u>FY00</u>	<u>FY01</u>	<u>FY02</u>	<u>FY03</u>	<u>FY04</u>	<u>FY05</u>	<u>FY06</u>	<u>FY07</u>
Workload	2,647.0	2,126.0	1,964.0	1,740.0	1,798.0	2,022.0	2,139.0	2,139.0
Capacity	3,820.0	3,220.0	3,220.0	3,220.0	3,220.0	3,220.0	3,220.0	3,220.0
Capacity Utilization	69%	66%	61%	54%	56%	63%	66%	66%

Table 3-2
Corpus Christi Army Depot (CCAD)
(DLH 000)

	<u>FY00</u>	<u>FY01</u>	<u>FY02</u>	<u>FY03</u>	<u>FY04</u>	<u>FY05</u>	<u>FY06</u>	<u>FY07</u>
Workload	2,687.0	2,865.0	2,675.0	2,670.0	2,533.0	2,533.0	2,533.0	2,533.0
Capacity	3,833.0	3,843.0	3,843.0	3,843.0	3,843.0	3,843.0	3,843.0	3,843.0
Capacity Utilization	70%	75%	70%	69%	66%	66%	66%	66%

Capacity data for FY01 includes two work positions for the planned installation of the Pensacola whirl-tower; two work positions for the planned installation of matched grinding cells for engines; and one work position for planned installation of a dabber welding system. For FY02 and beyond, capacity data reflects the inclusion of one work position for planned installation of an eddy current scanner (in addition to the eddy current scanner installed in FY00). No MILCONs are expected to be funded and completed that will affect capacity work position counts through FY07.

Table 3-3
Letterkenny Army Depot (LEAD)
(DLH 000)

	<u>FY00</u>	<u>FY01</u>	<u>FY02</u>	<u>FY03</u>	<u>FY04</u>	<u>FY05</u>	<u>FY06</u>	<u>FY07</u>
Workload	799.0	808.0	956.0	845.0	852.0	765.0	859.0	763.0
Capacity	1,174.0	1,153.0	1,153.0	1,153.0	1,153.0	1,153.0	1,153.0	1,153.0
Capacity Utilization	68%	70%	83%	73%	74%	66%	75%	66%

The decline in workload was due to reductions in new Orders for Tactical Missiles (BRAC 95). The final Tactical Missile System to be transitioned from LEAD was scheduled to be completed early in the third quarter of FY01. Missile components and ground general purpose accounts for the majority of the workload for FY01 and beyond. The increase in the FY01 workload is Foreign Military Sales (FMS) and Patriot Re-capitalization. The relative stability of the workload for FY02 and beyond is a result of the Patriot Re-capitalization programs.

In regards to capacity, FY00 and FY01 are transition years at LEAD. Some maintenance infrastructure transferred from Government ownership to the control of the Letterkenny Industrial Development Authority (LIDA). This resulted in a slight reduction in capacity from FY00 to FY 01.

Table 3-4
Red River Army Depot (RRAD)
(DLH 000)

	<u>FY00</u>	<u>FY01</u>	<u>FY02</u>	<u>FY03</u>	<u>FY04</u>	<u>FY05</u>	<u>FY06</u>	<u>FY07</u>
Workload	1,347.0	1,393.0	1,216.0	1,271.0	1,177.0	1,229.0	1,211.0	1,157.0
Capacity	1,589.0	1,587.0	1,589.0	1,587.0	1,589.0	1,589.0	1,588.0	1,587.0
Capacity Utilization	85%	88%	77%	80%	74%	77%	76%	73%

Table 3-5
Tobyhanna Army Depot (TYAD)
(DLH 000)

	<u>FY00</u>	<u>FY01</u>	<u>FY02</u>	<u>FY03</u>	<u>FY04</u>	<u>FY05</u>	<u>FY06</u>	<u>FY07</u>
Workload	2,806.0	3,068.0	2,992.0	2,936.0	2,900.0	2,900.0	2,902.0	2,900.0
Capacity	3,681.0	3,520.7	3,499.6	3,681.0	3,681.0	3,681.0	3,681.0	3,681.0
Capacity Utilization	76%	87%	85%	80%	79%	79%	79%	79%

After a period of carrying additional capacity during the transfer of incoming 1995 BRAC workloads from Sacramento Air Logistics Center (SM-ALC), the depot has adjusted the capacity to match the final workload mix. With the exception of some adjustments that may be necessary for the transfer of tactical missile workloads from Letterkenny Army Depot in FY01, it is expected that TYAD will maintain a similar workload mix through the outyears and therefore a similar capacity profile.

Table 3-6
Software Engineering Center (SEC) CECOM, Ft. Monmouth, NJ
(DLH 000)

	<u>FY00</u>	<u>FY01</u>	<u>FY02</u>	<u>FY03</u>	<u>FY04</u>	<u>FY05</u>	<u>FY06</u>	<u>FY07</u>
Workload	145.6	168.5	174.7	178.9	210.1	214.2	224.6	233.0

SEC Post Production software support is not performed at a traditional “depot,” rather it is performed at the US Army Communications Electronics Command (CECOM) at Ft. Monmouth, NJ.

3.2.2 Naval Air Systems Command

Table 3-7
Naval Air Depot Cherry Point (NADEP Cherry Point)
(DLH 000)

	<u>FY00</u>	<u>FY01</u>	<u>FY02</u>	<u>FY03</u>	<u>FY04</u>	<u>FY05</u>	<u>FY06</u>	<u>FY07</u>
Workload	3,908.4	3,582.8	3,806.6	3,728.6	3,728.6	3,728.6	3,728.6	3,728.6
Capacity	4,220.0	4,215.0	4,220.0	4,236.0	4,236.0	4,236.0	4,236.0	4,236.0
Capacity Utilization	93%	85%	90%	88%	88%	88%	88%	88%

For FY00 - FY01, the FY00 total utilized capacity is based on final/actual workload. FY01 utilization decreases eight percent as a result of a 223,000 direct labor hour decrease. For FY01 - FY 02, the peacetime utilization increase of five percent is reflective of the increase in the total utilized capacity direct labor hours. For FY02-FY07, the two percent peacetime utilization rate reduction results from a slight utilized/funded workload position through FY07.

Table 3-8
Naval Air Depot Jacksonville (NADEP Jacksonville)
(DLH 000)

	<u>FY00</u>	<u>FY01</u>	<u>FY02</u>	<u>FY03</u>	<u>FY04</u>	<u>FY05</u>	<u>FY06</u>	<u>FY07</u>
Workload	3,993.3	4,121.9	4,062.7	3,907.5	3,907.5	3,907.5	3,907.5	3,907.5
Capacity	4,559.0	4,624.0	4,588.0	4,493.0	4,493.0	4,493.0	4,493.0	4,493.0
Capacity Utilization	88%	89%	89%	87%	87%	87%	87%	87%

NADEP Jacksonville is implementing Business Process Re-engineering (BPR) strategies, MRP II and ISO 9000 methods and processes designed to improve shop work positions to outyear workload. For FY02 - FY07, the decrease in funded workload/utilized capacity DLHs resulted in a two percent decrease in the peacetime utilization percentage.

Table 3-9
Naval Air Depot North Island (NADEP North Island)
(DLH 000)

	<u>FY00</u>	<u>FY01</u>	<u>FY02</u>	<u>FY03</u>	<u>FY04</u>	<u>FY05</u>	<u>FY06</u>	<u>FY07</u>
Workload	4,019.5	3,669.5	3,810.9	3,650.8	3,650.8	3,650.8	3,650.8	3,650.8
Capacity	4,435.0	4,033.0	3,994.0	4,012.0	4,012.0	4,012.0	4,012.0	4,012.0
Capacity Utilization	91%	91%	95%	91%	91%	91%	91%	91%

NADEP North Island has integrated its underutilized/duplicate equipment (work positions) review process into various BPR initiatives. The review process continues as a functional analysis portion of the BPR Product Line Reviews. For FY01 - FY02, the funded workload increased between FY01 - FY02 by 141,000 DLHs. The increased utilized capacity total DLHs resulted in a four percent growth in the peacetime utilization index. For FY02 - FY07, the funding level after FY02 decreased by 160,000 DLHs. For FY03 - FY07, the peacetime utilization index remains constant at 91%.

3.2.3 Naval Sea Systems Command

The capacity information provided for the Naval Shipyards includes both the capacity for drydocks and the capacity for output shops. The capacity utilization rates shown in this Business Profile are based on the modified drydock capacity index as provided in the DoD 4151.18-H supplemental interim instructions issued 30 September 1999.

The total capacity calculation is based on ship availabilities that represent the shipyards' mission capability requirements and does not necessarily represent the actual workload mix that is forecasted. Therefore, yearly variations in the capacity utilization are expected, reflecting the workload changes.

The capacity utilization indexes reflect the current submarine-rich forecasted utilization of the drydocks and supporting facilities over this reporting period.

Table 3-10
Portsmouth Naval Shipyard (NSY Portsmouth)
(DLH 000)

	<u>FY00</u>	<u>FY01</u>	<u>FY02</u>	<u>FY03</u>	<u>FY04</u>	<u>FY05</u>	<u>FY06</u>	<u>FY07</u>
Workload	4,033.7	4,309.4	4,185.4	3,812.1	4,371.2	4,197.7	4,276.8	3,799.6
Capacity	5,471.9	5,471.9	5,471.9	5,471.9	5,471.9	5,471.9	5,471.9	5,471.9
Capacity Utilization	74%	79%	76%	70%	80%	77%	78%	69%

Portsmouth NSY workload fluctuates slightly with the peak year in FY01, but overall is fairly stable. Capacity utilization has increased since the previous edition of the DMBP, reflecting increased workload at the drydocks. Output shop workload levels have remained stable since the last edition of the DMBP.

Table 3-11
Norfolk Naval Shipyard (NSY Norfolk)
(DLH 000)

	<u>FY00</u>	<u>FY01</u>	<u>FY02</u>	<u>FY03</u>	<u>FY04</u>	<u>FY05</u>	<u>FY06</u>	<u>FY07</u>
Workload	8,867.8	8,499.1	8,503.7	8,282.9	9,481.4	9,307.6	8,217.6	9,509.6
Capacity	9,868.6	9,868.6	9,868.6	9,868.6	9,868.6	9,868.6	9,868.6	9,868.6
Capacity Utilization	90%	86%	86%	84%	96%	94%	83%	96%

The workload at Norfolk Naval Shipyard fluctuates moderately between FY01 and FY07 based on expected availabilities. The capacity utilization reflects fairly high levels. As with the previous edition of the DMBP, this data reflects fairly consistent workload amounts, stable capacity and a high rate of capacity utilization.

Table 3-12
Puget Sound Naval Shipyard (NSY Puget Sound)
(DLH 000)

	<u>FY00</u>	<u>FY01</u>	<u>FY02</u>	<u>FY03</u>	<u>FY04</u>	<u>FY05</u>	<u>FY06</u>	<u>FY07</u>
Workload	10,602.2	10,675.9	10,802.2	10,805.5	10,019.5	8,784.9	9,675.8	9,492.9
Capacity	11,007.5	11,007.5	11,007.5	11,007.5	11,007.5	11,007.5	11,007.5	11,007.5
Capacity Utilization	96%	97%	98%	98%	91%	80%	88%	86%

The workload at Puget Sound Naval Shipyard declines moderately between FY01 and FY07 based on expected availabilities. The capacity utilization reflects high levels. As with the previous edition of the DMBP, this data reflects fairly consistent workload amounts, stable capacity and a high rate of capacity utilization.

Table 3-13
Pearl Harbor Naval Shipyard & Intermediate Maintenance Facility
(NSY/IMF Pearl Harbor)
(DLH 000)

	<u>FY00</u>	<u>FY01</u>	<u>FY02</u>	<u>FY03</u>	<u>FY04</u>	<u>FY05</u>	<u>FY06</u>	<u>FY07</u>
Workload	4,962.5	4,476.7	4,334.5	4,204.4	4,419.7	4,713.4	4,329.7	4,635.9
Capacity	5,455.2	5,455.2	5,455.2	5,455.2	5,455.2	5,455.2	5,455.2	5,455.2
Capacity Utilization	91%	82%	79%	77%	81%	86%	79%	85%

The workload at Pearl Harbor Naval Shipyard and Intermediate Maintenance Facility increases between FY01 and FY07 based on expected availabilities. Workload projections are slightly higher as compared with the previous edition of the DMBP. Data reflects fairly consistent workload amounts, stable capacity and an acceptable rate of capacity utilization.

Table 3-14
Naval Surface Warfare Center Crane Division (NSWC Crane)
(DLH 000)

	<u>FY00</u>	<u>FY01</u>	<u>FY02</u>	<u>FY03</u>	<u>FY04</u>	<u>FY05</u>	<u>FY06</u>	<u>FY07</u>
Workload	601.0	704.0	638.0	670.0	685.0	720.0	790.0	814.0
Capacity	652.0	769.0	700.0	732.0	751.0	784.0	865.0	890.0
Capacity Utilization	92%	92%	91%	92%	91%	92%	91%	91%

In the ordnance, weapons and munitions commodity area, the Joint Biological Point Detection (JBPD) and the Joint Service Lightweight Standoff Chemical Agent Detector (JSLSCAD) programs are currently in the development stages. It is anticipated there will be an increase in workload starting in FY05 when the actual ship installations begin. Other commodity areas remain stable. The increase in total capacity in FY06 and FY07 is a result of the anticipated start-up on ship installations for the JBPD and the JSLSCAD programs.

Table 3-15
Naval Undersea Warfare Center Division, Keyport (NUWC Keyport)
(DLH 000)

	<u>FY00</u>	<u>FY01</u>	<u>FY02</u>	<u>FY03</u>	<u>FY04</u>	<u>FY05</u>	<u>FY06</u>	<u>FY07</u>
Workload	802.0	818.0	847.0	871.0	873.0	847.0	914.0	929.0
Capacity	736.0	861.0	911.0	936.0	936.0	936.0	980.0	980.0
Capacity Utilization	109%	95%	93%	93%	93%	90%	93%	95%

Organic workload is projected to remain relatively stable, with a modest increase in the outyears due to heavyweight torpedo requirements. A slight increase in capacity is projected as a result of new testing capabilities to support upgrades to torpedoes.

3.2.4 Space and Naval Warfare Systems Command

Table 3-16
SPAWAR Systems Center, San Diego
(DLH 000)

	<u>FY00</u>	<u>FY01</u>	<u>FY02</u>	<u>FY03</u>	<u>FY04</u>	<u>FY05</u>	<u>FY06</u>	<u>FY07</u>
Workload	247.0	279.0	279.0	279.0	279.0	279.0	279.0	279.0
Capacity	310.0	338.0	338.0	338.0	338.0	338.0	338.0	338.0
Capacity Utilization	80%	83%	83%	83%	83%	83%	83%	83%

Table 3-17
SPAWAR Systems Center, Charleston
(DLH 000)

	<u>FY00</u>	<u>FY01</u>	<u>FY02</u>	<u>FY03</u>	<u>FY04</u>	<u>FY05</u>	<u>FY06</u>	<u>FY07</u>
Workload	136.0	136.0	124.0	105.0	105.0	105.0	105.0	105.0
Capacity	190.0	190.0	190.0	190.0	190.0	190.0	190.0	190.0
Capacity Utilization	72%	72%	65%	55%	55%	55%	55%	55%

Workload from Strategic Systems Programs is expected to be reduced in FY02 and FY03, but will remain consistent from FY04-FY07. Capacity figures are based on facility limitations, which will remain consistent for the reporting period.

3.2.5 Air Force

There is no longer any depot maintenance workload accomplished at San Antonio Air Logistics Center (SA-ALC) or Sacramento Air Logistics Center (SM-ALC). For FY00 SA-ALC reported 209 thousand DLHs of workload and SM-ALC reported 430 thousand DLHs of workload. These amounts are included in the FY00 workload totals in Chapter 2, Chart 2-2 and in Table 2-1. The remaining significant workloads that were being accomplished during FY00 have been moved to other sources of repair, e.g., aircraft engine workload from SA-ALC was converted to private contractors as of 15 Dec 99, and the transfer of the SM-ALC communications-electronics (C-E) workload to TYAD was completed by 30 Sept 00. There are no tables in this chapter for SA-ALC or SM-ALC. As a result of the BRAC closings of SM-ALC and SA-ALC; workload transfers from those bases to the remaining ALCs; and anticipated capacity reductions, the capacity utilization indexes for OC-ALC, OO-ALC, and WR-ALC are projected to exceed 100 percent.

Table 3-18
Oklahoma City Air Logistics Center (OC-ALC)
(DLH 000)

	<u>FY00</u>	<u>FY01</u>	<u>FY02</u>	<u>FY03</u>	<u>FY04</u>	<u>FY05</u>	<u>FY06</u>	<u>FY07</u>
Workload	9,966.0	9,991.0	9,490.0	9,308.0	9,276.0	8,615.0	8,615.0	8,615.0
Capacity	9,725.0	9,064.0	8,994.0	9,001.0	9,009.0	9,009.0	9,009.0	9,009.0
Capacity Utilization	102%	110%	106%	103%	103%	96%	96%	96%

Between FY00 and FY01 some work was reclassified from engines to Exchangeable components. Starting in FY02, OC-ALC's efficiency level is expected to increase due to better technical competence on workloads that moved from closing depots. Beginning in FY05, there is a general decline in forecasted workload due soft depot requirements

estimation. This is especially seen in software. The decrease in capacity from FY00 to FY01 is caused by the termination of job routing in the gas turbine engine workload.

Table 3-19
Ogden Air Logistics Center (OO-ALC)
(DLH 000)

	<u>FY00</u>	<u>FY01</u>	<u>FY02</u>	<u>FY03</u>	<u>FY04</u>	<u>FY05</u>	<u>FY06</u>	<u>FY07</u>
Workload	7,288.0	6,999.0	7,350.0	7,005.0	7,237.0	7,263.0	7,263.0	7,263.0
Capacity	7,324.0	6,537.0	6,568.0	6,568.0	6,568.0	6,568.0	6,568.0	6,568.0
Capacity Utilization	100%	107%	112%	107%	110%	111%	111%	111%

OO-ALC notes that there is some volatility in aircraft workload caused by the completion of an F-16 modification in FY00, a new F-16 modification in FY02, and reductions in customer funding in FY03. Missile workload is anticipated to increase in FY02 due to a new ICBM Propellant Replacement Program. There is expected to be a growth in the Exchangeable component workload due to the transfer of workload from closing depots. The decrease in capacity from FY00 to FY01 is due to completion of the F-16 Flacon-up program and a decrease in the F-16 Service Life extension program.

Table 3-20
Warner Robins Air Logistics Center (WR-ALC)
(DLH 000)

	<u>FY00</u>	<u>FY01</u>	<u>FY02</u>	<u>FY03</u>	<u>FY04</u>	<u>FY05</u>	<u>FY06</u>	<u>FY07</u>
Workload	7,757.0	7,986.0	7,988.0	7,930.0	7,897.0	7,567.0	7,567.0	7,567.0
Capacity	7,500.0	7,538.0	7,301.0	7,251.0	7,122.0	7,122.0	7,122.0	7,122.0
Capacity Utilization	103%	106%	109%	109%	111%	106%	106%	106%

The workload growth from FY00 to FY01 is attributed to the transfer of Exchangeable component workload from closing depots. There is decline in aircraft workload in FY05 due to soft depot requirements forecasting. The primary driver for the decrease in capacity from FY01 to FY04 is the phasing out of the C-141 aircraft from the active inventory.

Table 3-21
Aerospace Maintenance and Regeneration Center (AMARC)
(DLH 000)

	<u>FY00</u>	<u>FY01</u>	<u>FY02</u>	<u>FY03</u>	<u>FY04</u>	<u>FY05</u>	<u>FY06</u>	<u>FY07</u>
Workload	449.0	494.0	487.0	451.0	394.0	340.0	340.0	340.0

3.2.6 Marine Corps

**Table 3-22
Maintenance Center Albany
(DLH 000)**

	<u>FY00</u>	<u>FY01</u>	<u>FY02</u>	<u>FY03</u>	<u>FY04</u>	<u>FY05</u>	<u>FY06</u>	<u>FY07</u>
Workload	996.9	1,124.9	841.2	653.2	650.2	650.2	650.2	650.2
Capacity	997.2	997.2	848.4	839.2	839.2	839.2	839.2	839.2
Capacity Utilization	100%	113%	99%	78%	77%	77%	77%	77%

The amphibious workload consists of only the Amphibious Assault Vehicle Reliability and Maintainability – Rebuild to Standard (AAV RAM-RS) program that will be completed FY02. There is no AAV workload projected for FY03-07. The AAV will be replaced by the AAV Weapon System with initial fielding projected for FY06. Radar workload was transferred by management decision from the Albany Maintenance Center to the Barstow Maintenance Center, consolidating radar support under one maintenance activity. Barstow was already supporting three of the four Marine Corps radar systems. The Engineering Equipment Building MILCON scheduled for completion in May 2001 is a replacement for an existing outdoor area used to repair construction equipment with no anticipated change in work capacity. Capacity reduction in the outyears is due to the consolidation and movement of the radar workload to Barstow and program completion of major programs such as the AAVRAM.

**Table 3-23
Maintenance Center Barstow
(DLH 000)**

	<u>FY00</u>	<u>FY01</u>	<u>FY02</u>	<u>FY03</u>	<u>FY04</u>	<u>FY05</u>	<u>FY06</u>	<u>FY07</u>
Workload	1,168.0	1,124.9	905.7	905.7	905.7	905.7	905.7	905.7
Capacity	1,168.0	1,014.0	1,014.0	1,014.0	1,014.0	1,014.0	1,014.0	1,014.0
Capacity Utilization	100%	111%	89%	89%	89%	89%	89%	89%

The Maintenance Center Barstow (MCB) accomplishes work on a variety of commodities. The amphibious workload consists of only the AAV RAM-RS program that will be completed FY02. There is no AAV workload projected for FY03-07. The AAV will be replaced by the AAV Weapon System with initial fielding projected for FY06. In the missiles/missile components commodity, Foreign Military Sales support increased from FY99-FY00. MCB is partnering with private industry on workload for Hawk Missile components as well as Tow/Dragon missile and Javelin weapons systems. The workload in the ground combat vehicle commodity will be changing in FY03, and the emphasis will be in support of the newly fielded M88A2 Heavy Equipment Recovery Combat Utility Lift and Evacuation System (HERCULES) vehicle. In the communications electronic equipment commodity the workload for FY00-FY01 consists of AN/TPS-59 antenna systems, AN/MPQ-62 radar, AN/TPS-63 radar rebuild, as well

as the Avenger screening program and numerous electronic components for Aviation and Missile Command (AMCOM) account for the additional workload. Automotive requirements for the MPS shipment, and the Enhanced Equipment Allowance Pool Program (EEAP), Secondary Reparable Program and Overflow Maintenance Programs combine to provide a sustained workload in the automotive commodity that will continue through FY01. The C3 Program provides Corrosion Control and Coating to Tactical Vehicle and Ground General Purpose Vehicles with limited repairs on an unusual basis performed on this equipment. In FY00 MCB serviced eight Paxman Valenta Marine Propulsion diesel engines utilized on the US Coast Guard's Island Class Patrol Boat and the NSWG Patrol Coastal Class Ships. MCB is the only fully certified facility on the West Coast authorized to repair these engines. Workload in the special interest items commodity (calibration) is related to ISO 9002 compliance as well as MARCORSYSCOM workload.